Namibiocossus staudei sp.n. (Lepidoptera: Cossidae) from South Africa with catalogue of the genus

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ABSTRACT. The article describes a new species, *Namibiocossus staudei* Yakovlev sp.n. (Lepidoptera, Cossidae, Cossinae) from Southern Africa (Northern Cape Province) and presents the world catalog of the genus *Namibiocossus* Mey, 2015.
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KEY WORDS: biodiversity, new species, Carpenter moths, taxonomy, Northern Cape.

Namibiocossus staudei sp.n. (Lepidoptera: Cossidae) из Южно-Африканской Республики с каталогом рода

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РЕЗЮМЕ. В статье описан новый вид *Namibiocossus staudei* Yakovlev sp.n. (Lepidoptera, Cossidae, Cossinae) из Южно-Африканской Республики (Провинция Северный Кейп) и представлен каталог рода *Namibiocossus* Mey, 2015.
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КЛЮЧЕВЫЕ СЛОВА: биоразнообразие, новый вид, древоточцы, таксономия, Северный Кейп.

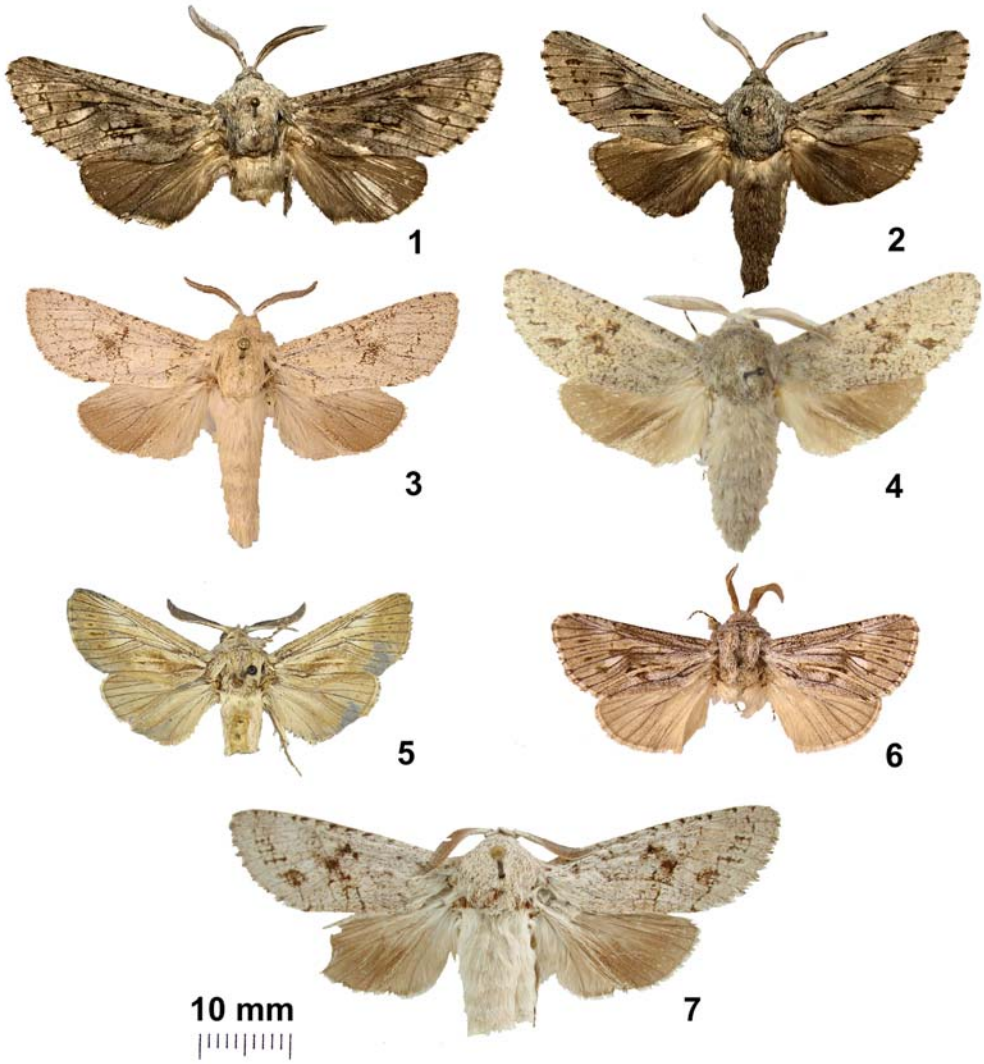
Introduction

The genus *Namibiocossus* Mey, 2015 (Lepidoptera: Cossidae: Cossinae) was established by Mey (2015: 38-40) for *Pecticossus gaerdesi* Daniel, 1956 (by original designation). Apart from the type species, the genus included *Arctiocossus punctifer* Gaede, 1929 (=*Arctiocossus danieli* Clench, 1959) and *Namibiocossus uhligorum* Mey, 2015. The genus representatives are widely spread in the Namib Desert in southern Angola and western Namibia. The genus was allocated basing on the special ribbon-like valves (this character is apomorphic for this genus).

Examining the specimens in the private collection of Hermann Staude, I found two males from Southern Africa (Northern Cape Province) of a species new to science. Its description is provided below.

Material and methods

Abbreviation list: NHMUK — The Natural History Museum (London, U.K.); NMNW — National Museum of Namibia, Windhoek (Namibia); RYB —



Figs 1–7. Adult males of *Namibiocossus*: 1 — *N. staudei* sp.n., holotype (TMSA); 2 — *N. staudei* sp.n., paratype (RYB); 3 — *N. gaerdesi*, holotype (ZSM); 4 — *N. gaerdesi*, paratype, Namibia (TMSA); 5 — *N. punctifer*, holotype (NHMUK); 6 — *N. punctifer*, holotype of *Arctiocossus danieli* (ZSM); 7 — *N. uhligorum*, holotype (NMNW).
Рис. 1–7. Самцы *Namibiocossus*: 1 — *N. staudei* sp.n., голотип (TMSA); 2 — *N. staudei* sp.n., паратип (RYB); 3 — *N. gaerdesi*, голотип (ZSM); 4 — *N. gaerdesi*, паратип, Намибия (TMSA); 5 — *N. punctifer*, голотип (NHMUK); 6 — *N. punctifer*, голотип *Arctiocossus danieli* (ZSM); 7 — *N. uhligorum*, голотип (NMNW).

private collection of Roman Yakovlev (Barnaul, Russia); TMSA — the Ditsong National Museum of Natural History, Pretoria (formerly Transvaal Museum); ZSM — the Zoologische Staatssammlung, Munich (Germany).

Male genitalia were mounted in euparal on slides following Lafontaine and Mikkola (1987). The adults were photographed using digital camera of iPhone 7. The genitalia preparations were photographed using an Olympus DP74 camera attached to an Olympus SZX16 stereomicroscope. The morphological terminology used in the description follows Kristensen (2003). The map was made using open source software (https://www.simplemappr.net/).

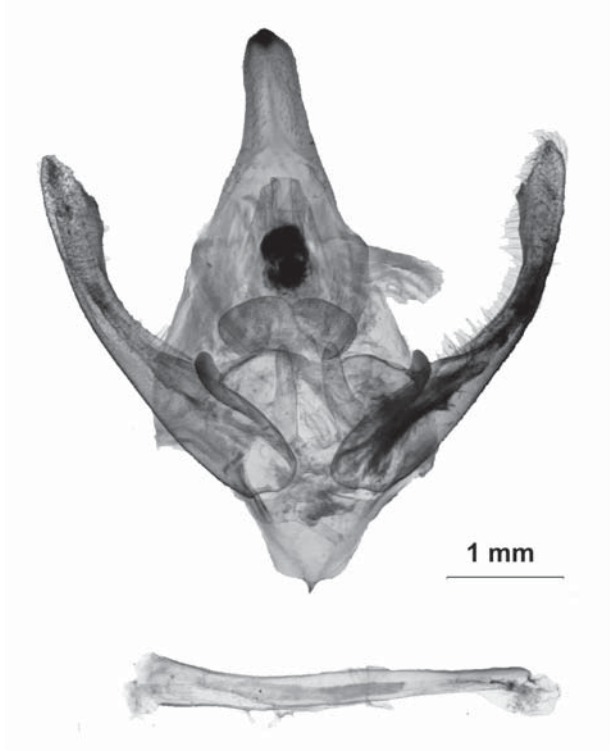


Fig. 8. Male genitalia of *N. staudei* sp.n., holotype (TMSA).
Рис. 8. Гениталии самца *N. staudei* sp.n., голотип (TMSA).

Results

Description of new species

Namibiocossus staudei Yakovlev **sp.n.**
Figs 1, 8.

MATERIAL EXAMINED. TYPE MATERIAL. Holotype ♂: South Africa, Northern Cape, Port Nolloth, Mcdougals Bay, 19 m, 29°17′25″ S 16° 52′51″ E, 20.xii.2015, leg. J.P. Greeff (TMSA, slide AN144). Paratype, 1♂, same data and locality (RYB).

DESCRIPTION. Male. Length of fore wing in holotype 23 mm (paratype — 22 mm). Antennae equal to 1/2 of fore wing in length, bipectinate, setae 3.5-4 times longer than antenna stem diameter. Head, thorax and base of abdomen from upside covered with grey scales, distal end of abdomen brown. Fore wing grey with brown pattern: series of tiny brown dots along costal margin; postdiscally — small light-brown portions at base of veins of medial and cubital trunk, submarginally between veins of medial trunk — oblique series of brown spots; fringe brown at veins, grey between veins. Hind wing brown, unicolorous, with weak sputtering of grey scales, fringe white.

Male genitalia (Fig. 8) typical for the genus representatives. Uncus conical, of medium length, apically rounded, strongly sclerotized; gnathos arms thick, of medium length; gnathos large, its surface covered with tiny spikes; valve long, narrow, with poorly developed process on costal margin (in distal third), transtilla processes poorly curved, apices semicircular; juxta robust, saddle-like, with two robust tapered lateral processes directed dorsally; saccus trapezoidal, robust, with small apical spike; phallus equal to valve in length, relatively thick, poorly curved from basal end to apex, slightly curved in basal third, vesica aperture about 1/4 of phallus in length, vesica without cornuti.

Female unknown.

ETYMOLOGY. The new species is named after the prominent South-African entomologist Hermann Staude, the owner of a large collection of African Lepidoptera, who kindly received the author of the publication in his hospitable home.

DIAGNOSIS. Clearly differs from the known species of the genus in the well modified mottled pattern on the fore wing. In the male genital structure, most close to *N. gaerdesi*, from which it differs in the significantly darker color of the wings, and in the more developed process on the costal margin of

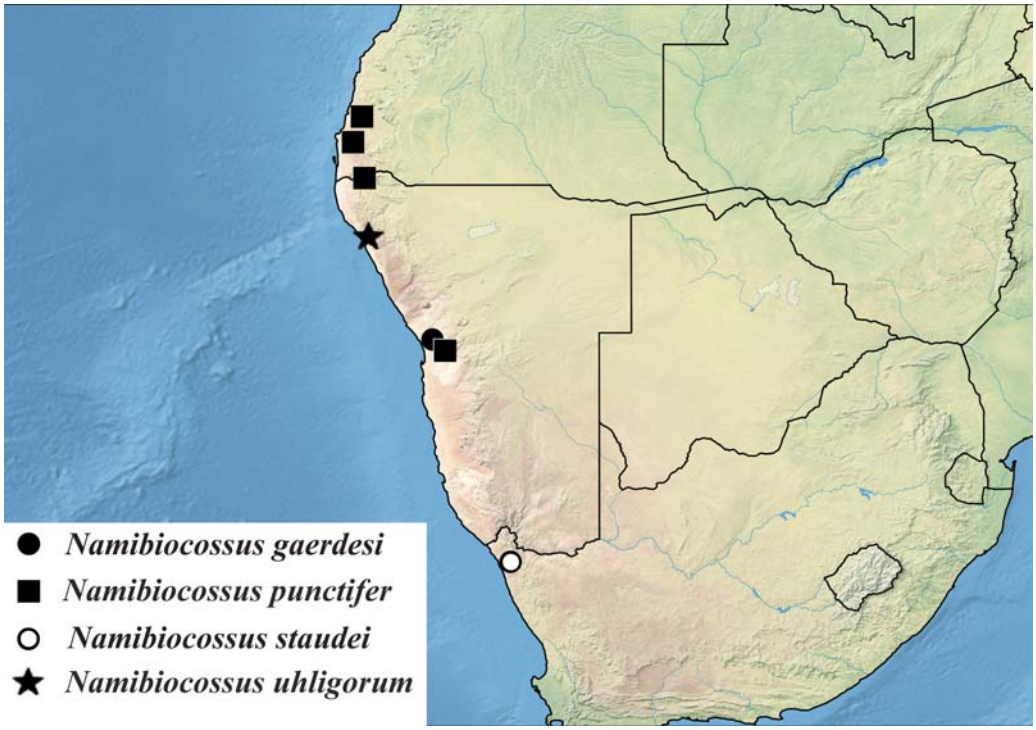


Fig. 9. Distributional map of *Namibiocossus*.
Рис. 9. Карта распространения рода *Namibiocossus*.

the valve. *N. punctifer* and *N. uhligorum* are clearly distinguished in the acute hook-like transtilla processes.

DISTRIBUTION. Known only from type locality.

Catalogue of the genus

Namibiocossus Mey, 2015

Mey, 2015: 38-40.

Type species (by original designation) *Pecticossus gaerdesi* Daniel, 1956.

COMPOSITION. Four species.

DISTRIBUTION. Namib Desert (in Angola and Namibia) and Namaqualand (in South Africa) (Fig. 9).

Namibiocossus gaerdesi (Daniel, 1956)
Figs 2-4.

Pecticossus gaerdesi Daniel, 1956: 289-290.

Type locality: [Namibia]: "S.W. Africa/ Wlotz-[k]a[s]baken".

Type material: Holotype (ZSM), examined.

DISTRIBUTION: Namibia (Namib Desert) (Mey, 2015).

EARLY STAGE. According to Daniel (1956) the collector of the type series, F. Gaerdes, found the pupal exuviae on stems of *Zygophyllum stapffi* Schinz. (Zygophyllaceae), a large plant species endemic to the Namib Desert.

Namibiocossus punctifer (Gaede, 1929)
Figs 5–6.

Arctiocossus punctifer Gaede, 1929: 543 (as *punctifera*).

Type locality: [Angola, Namibe], "Coroque R.[iver]/ 60 miles from/ coast (Penrice)".

Type material: Holotype (NHMUK), examined.

= *Arctiocossus danieli* Clench, 1959: 24–26. Type locality: [Namibia]: S.W. Africa, Wlotzka[s]baken. Type material: Holotype (ZSM), examined. Synonymy designated by Mey [2015: 40].

DISTRIBUTION: Southern Angola and Namibia (Namib Desert) (Mey, 2015).

Notes. Mey (2016: 153) reported one pair (male and female) of *N. punctifer* collected by D.M. Kroon from South Africa, Northern Cape, Port Nolloth, McDougall Bay, S29°16′ E16°53′. Unfortunately,

these specimens and their morphological details are not illustrated. Probably, both specimens belong to the new species described here, *N. staudei*, however it is impossible to answer this question, so I don't include this material into the type series.

Namibiocossus staudei Yakovlev sp.n.

Type locality: South Africa, Northern Cape, Port Nolloth, Mcdougals Bay.

Type material: Holotype (TMSA), examined.

DISTRIBUTION: South Africa, Northern Cape (Namaqualand).

Namibiocossus uhligorum Mey, 2015
Fig. 7.

Mey, 2015: 41.

Type locality: Namibia, Skeleton Coast Park, Möwe Bay.

Type material: Holotype (NMNW).

DISTRIBUTION: Namibia (Namib Desert).

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